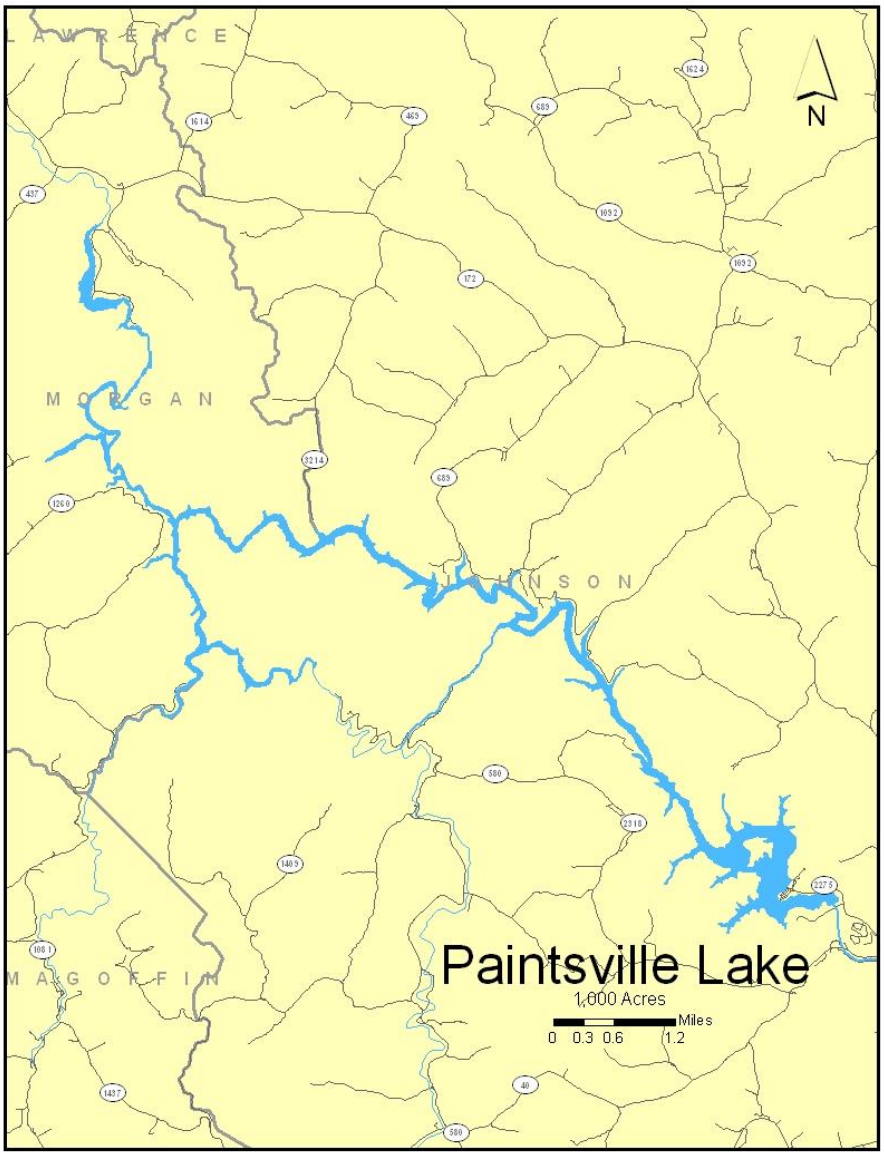
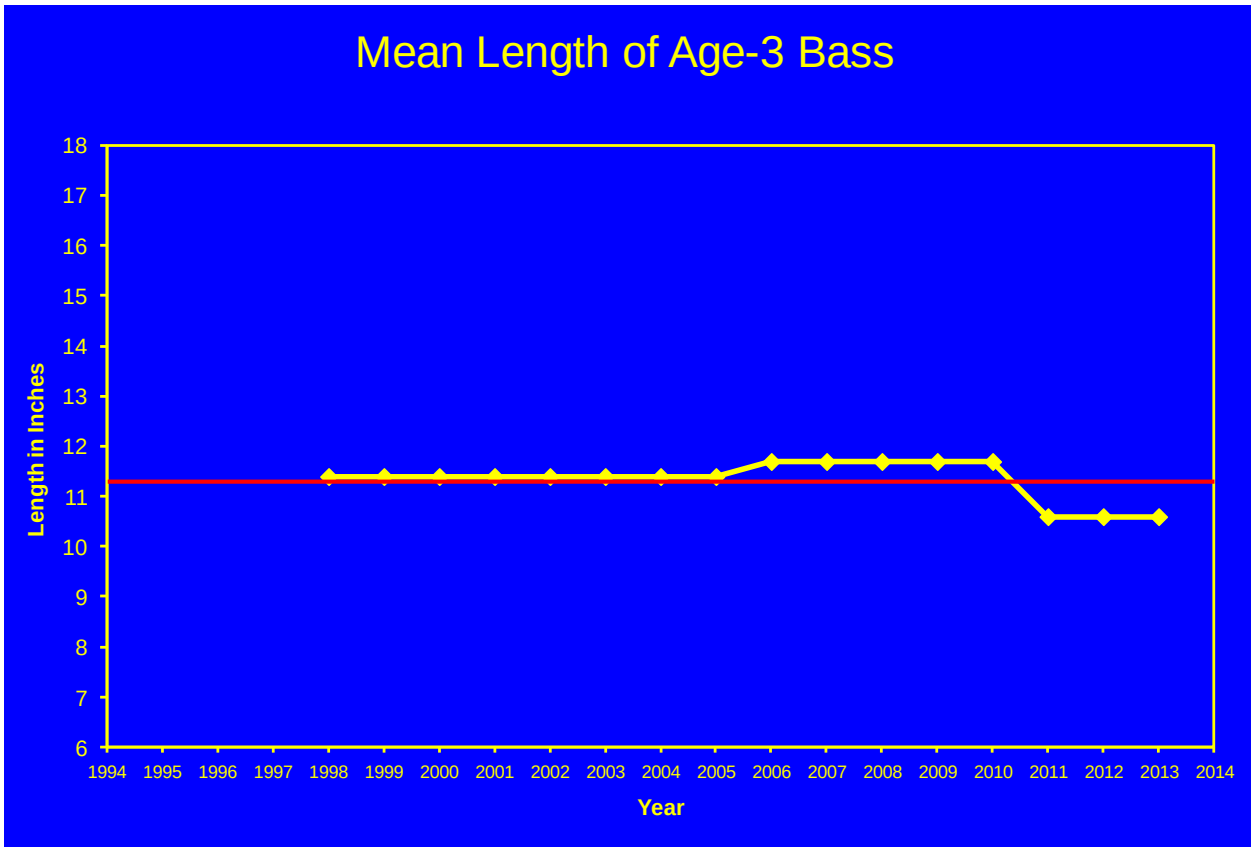
# Paintsville Lake Bass Assessment 2013

Paintsville Lake is a 1,150 acre multipurpose reservoir on Paint Creek in Johnson and Morgan Counties. In addition to largemouth bass, the lake offers good and improving opportunities for rainbow trout and walleye. Summer coldwater discharge was recently reduced so that the target discharge temperature was increased from 55˚F to 68˚F. This should help the trout and walleye in the lake. Increased size and numbers of walleye were observed in the spring of 2008 and 2010. Efforts are ongoing to increase the numbers of smallmouth bass in Paintsville Lake. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. Please see "Understanding The Largemouth Bass Assessment" article for an explanation of how the assessment works. *Please note that a 12.0-15.0 inch slot limit was placed on largemouth bass in 2002 to reduce competition, increase growth rates, and increase the number of bass in excess of 15.0 inches.*



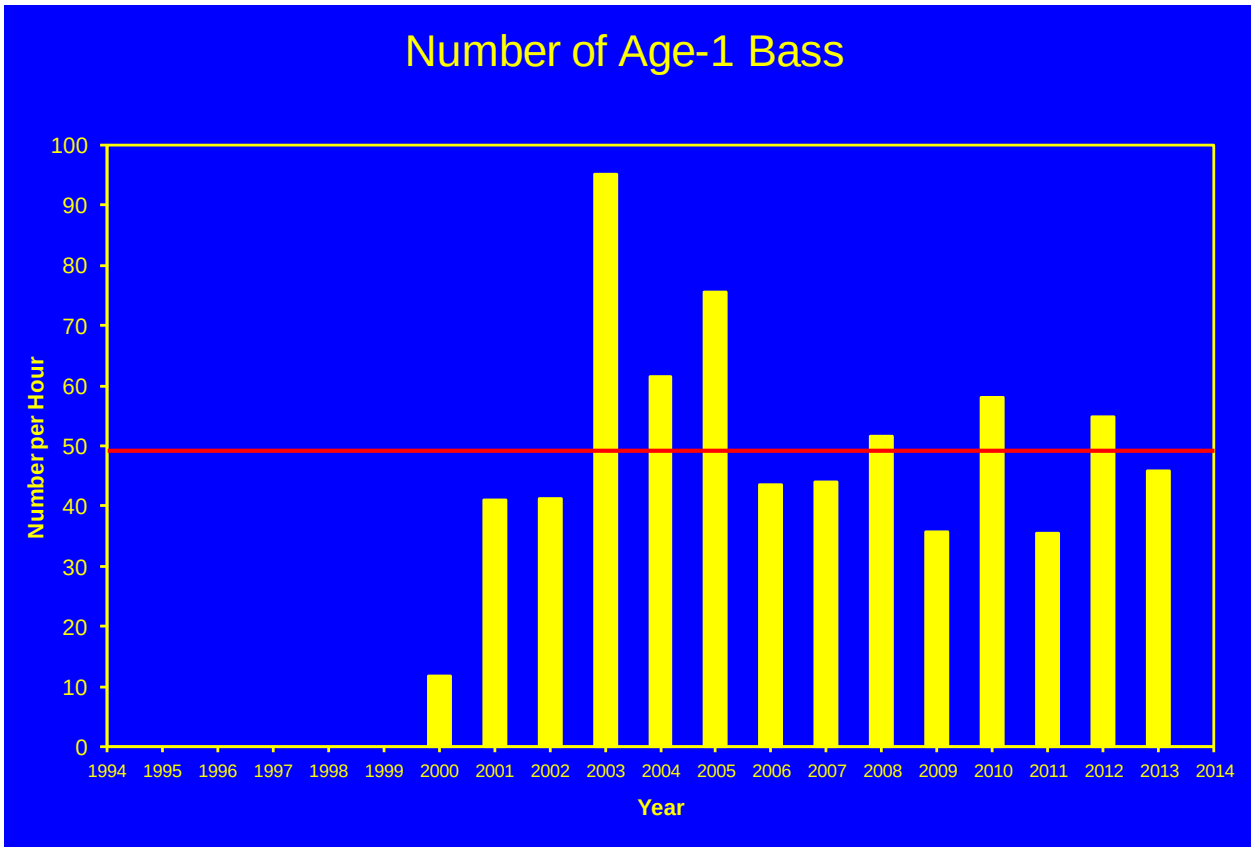
## Parameter 1 – Length at age-3 (growth rate)

At Paintsville Lake, the length of an age-3 largemouth bass has averaged 11.3 inches since 1998 (represented by the red line). When compared to other lakes of this size, this is considered to be fair growth for largemouth bass. Growth has been relatively stable with a slight increase in 2006 and then a decrease in 2011. Growth rates are generally related to factors such as population density, food resources, and weather patterns. It is possible that the increased growth rate seen in 2006 is related to the slot limit established in 2002, but the decline in 2011 may reflect very strong year classes in the past that caused increased competition for resources.



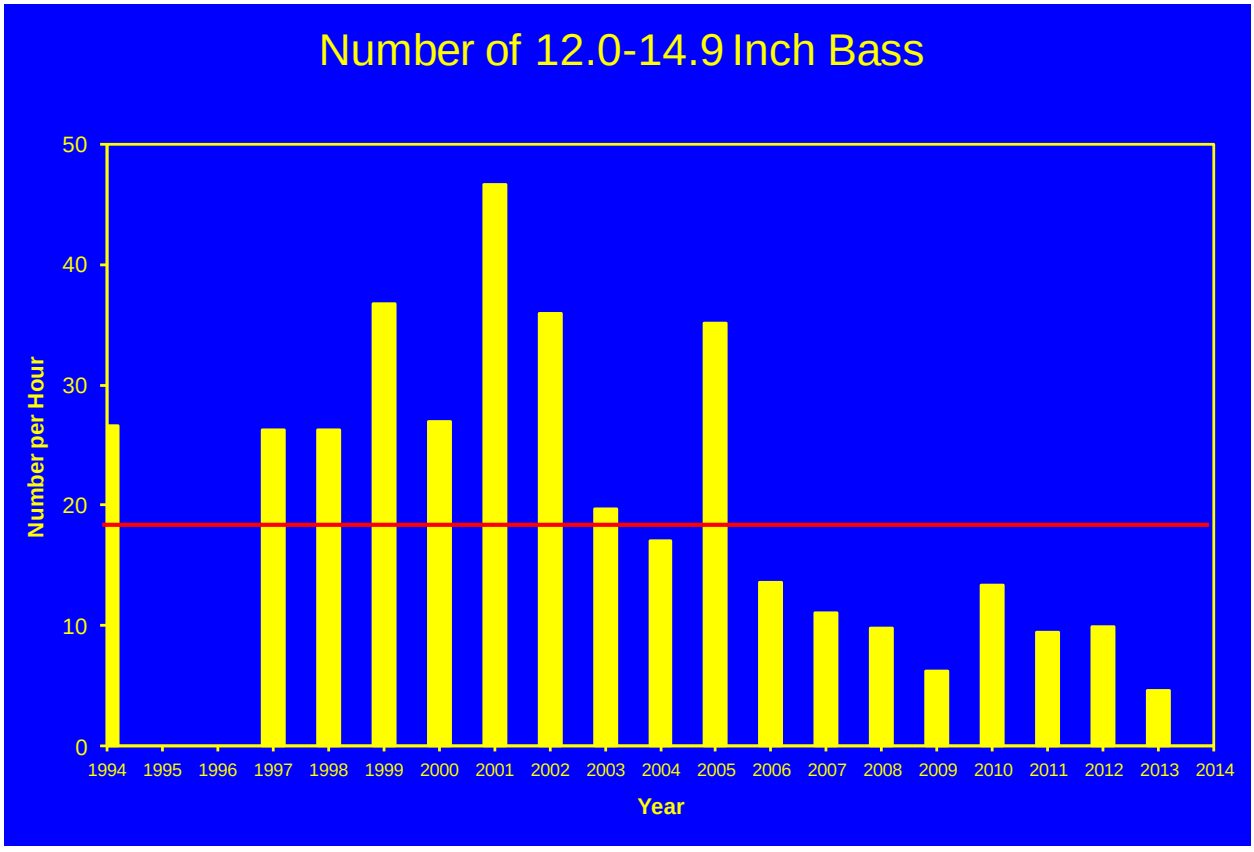
## Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the electrofishing catch rates of age-1 largemouth bass to assess the success of the spawn which occurred in the prior year. This is an important parameter because the number of age-1 bass produced represents how good the fishing will be once these fish grow large enough for anglers to catch. At Paintsville Lake, age-1 largemouth bass catch rates have averaged 49.66 fish/hour of electrofishing since 2000 (see red line). When compared to other lakes in this size range, this is considered to be a good age-1 catch rate. Spring catch rates of age-1 largemouth bass have vastly fluctuated since 2000. Paintsville Lake typically sees excessive largemouth bass production. A few poor years could improve growth and the overall size structure in years to come.



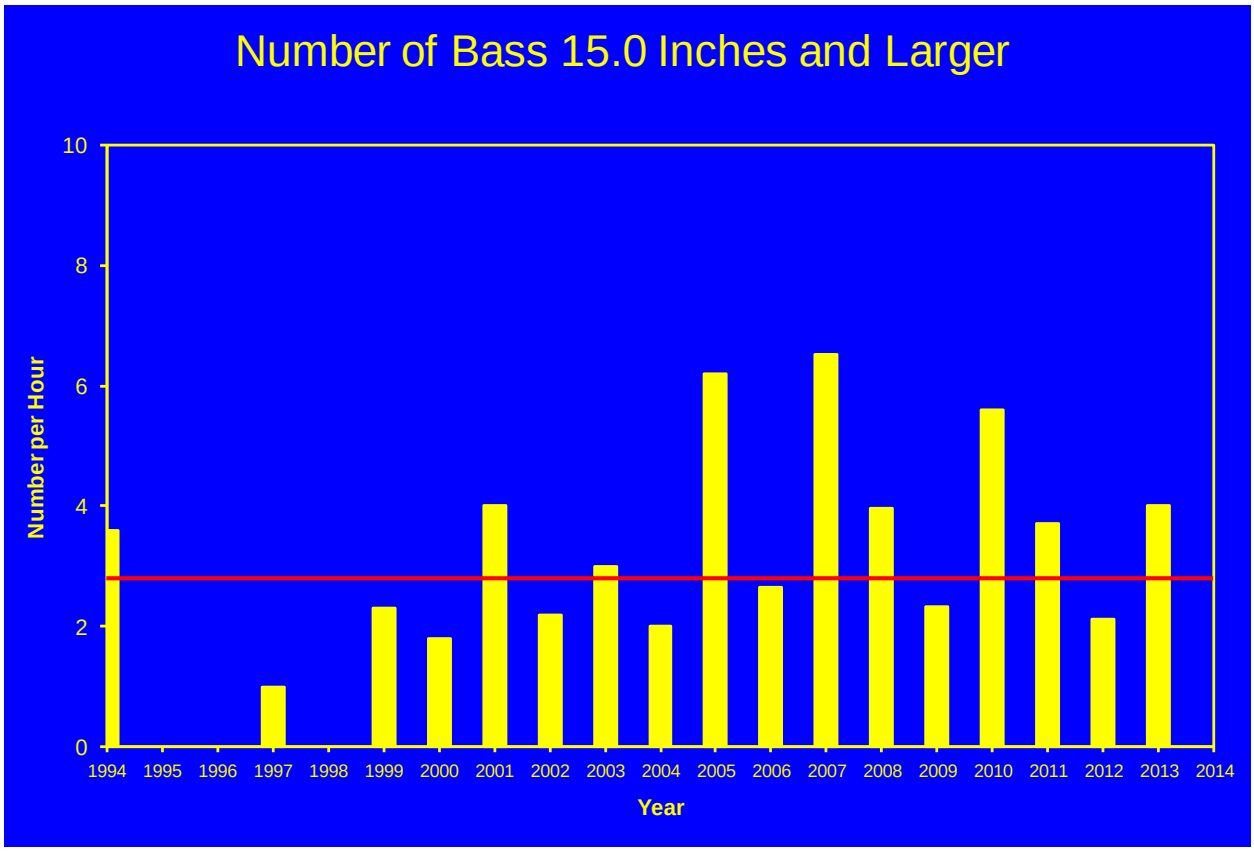
## Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass averaged 18.27 fish/hr from 1988 - 2005, which gave Paintsville Lake a fair rating when compared to other lakes its size. Beginning in 2006, the catch rate for this size range of bass has dropped and reached a low of 4.95 fish/hr in 2013. From 2006 to 2013 the catch rate for 12.0-14.9 inch fish averaged 9.74 fish/hr and is considered a “poor” catch rate. The slot limit imposed in 2002 should have improved fish numbers in this category by now. This statistic is important because these fish represent those that will be available for harvest in the next year or two. KDFWR will be investigating these declines and potential changes that can be made to improve this fishery.



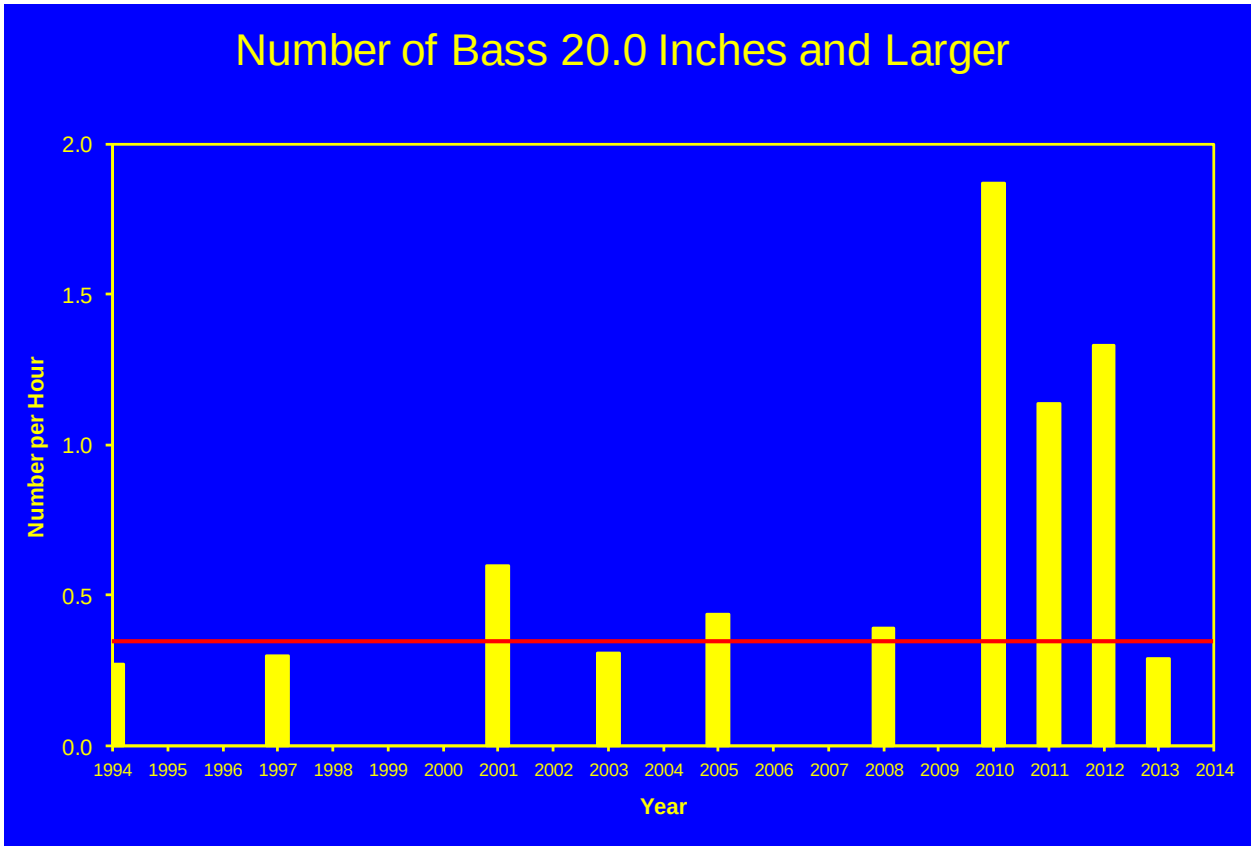
## Parameter 4 – Numbers of 15.0 inch and larger bass

The catch rate of 15.0 inch and larger largemouth bass at Paintsville Lake has averaged 2.67 fish/hour of electrofishing since 1988. Compared to other lakes, this is a poor catch rate for this size group. Since the slot limit was imposed in 2002, the number of available largemouth bass 15.0 inches or larger has slowly increased, with the 2013 catch rate of 4.95 fish/hr receiving a “fair” rating.



## Parameter 5 – Numbers of 20.0-inch and larger bass

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged 0.33 fish per hour for Paintsville Lake since 1988. This catch rate gives the lake a fair rating when compared to other lakes in its size range. From 2010-2012, biologists observed the three highest catch rates in over 20 years for fish larger than 20.0 inches in Paintsville Lake at 1.87, 1.14, and 1.33 fish per hour, respectively. This parameter should be read with caution, however, because the difference of one fish ether way can make the difference between a good and fair score. Although Paintsville Lake is not currently known as a quality largemouth bass lake, a few trophy fish are available to anglers.



**Overall – Total Assessment Score (All five parameters added together)**

Overall, the largemouth bass fishery at Paintsville Lake has averaged a “fair” rating (9.69) over the past 14 years. The largemouth bass population at this lake has been very inconsistent. In 2000, the largemouth population rated “poor”, but by 2001 the score had improved to good only to drop to “fair” in each of the next three years. In 2005, the score had rebounded to 14 for a “good” score. This was the best largemouth bass assessment ever recorded for Paintsville Lake; however, the next year resulted in one of the lowest assessment values for the lake. Modest improvement over the past few years has resulted in a score of 13, or “good,” in 2010. The “poor” assessment score of 7 in 2009 is misleading due to a poor sample that year due to equipment failure. The lake seems to be stuck in a pattern of improved quality followed by a return to a status of “fair” or “poor”. The most recent rating was “fair” in 2013.